UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,624	09/12/2003	Hironori Masui	03500.017552	6137

5514 7590 03/07/2005

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER	
MORRISON, THOMAS A	

ART UNIT	PAPER NUMBER
3653	

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/660,624	MASUI ET AL.	
	Examiner	Art Unit	
	Thomas A. Morrison	3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 February 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings were received on February 9, 2005. These drawings are accepted.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3-5, 8 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3 and its dependent claims 4-5, claim 3 now recites "said rotary member" in lines 5 and 6. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 8, it is unclear as to what is meant by the recited sheet feeding direction. In particular, independent claim 1 recites that the aligning portion moves the bundle of sheets ***in a sheet feeding direction***, and then the dependent claim 8 recites that the shutter is retractable ***in the sheet feeding direction***. The shutter limitation in claim 8 appears to be inaccurate. In particular, the sheets appear to be fed from left to right in Fig. 1, while the shutter (4) appears to move up and down in Fig. 1. As such, claim 1 appears to clarify that the sheet feeding direction is from left to right in Fig. 1. In contrast, the movement of the shutter (4) appears to be perpendicular to this sheet feeding direction.

Regarding claim 11, there is insufficient description of the structural relationship between the recited aligning portion and the recited instructing portion to perform the function set forth in claim 11. How does the instructing portion determine whether or not to execute a mode in which the sheets should not be fed after the aligning operation by the aligning portion? More specifically, claim 11 recites an instructing portion arranged to instruct whether or not to execute a mode in which the sheets are not fed after an aligning operation by the aligning portion. It is unclear as to what the structural relationship (the arrangement) is between the instructing portion and any other elements of claim 11.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 6 and 12, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Nahar et al. In particular, Nahar et al. meets all of the limitations set forth in claims 1, 2, 6 and 12.

Regarding claim 1, Nahar et al. discloses a sheet feeding apparatus (10) including a sheet supporting stand (20) which supports a bundle of sheets (D) in an erect posture;

a sheet feeding portion (including 40, 42 and 44) which feeds the bundle of sheets (D) supported by the sheet supporting stand (20);

a pressure portion (F) which thrusts the bundle of sheets (D) toward the sheet feeding portion (including 40, 42 and 44) during feeding by the sheet feeding portion (including 40, 42 and 44);

an aligning portion (including R2, R4, R6) which vibrates the bundle of sheets (D) upward and downward and moves the bundle of sheets in a sheet feeding direction (top to bottom in Fig. 1) while supporting the bundle of sheets at at least two locations of the sheet supporting stand (i.e., sheets supported on R2, R4 and R6); and

a hitting portion (46) arranged to be hit against the leading edges of the bundle of sheets (D) moved by the aligning portion (including R2, R4 and R6),

wherein the pressure portion (F) is moved to a position in which the pressure portion (F) does not hinder an aligning operation of the aligning portion (including R2, R4 and R6) during the aligning operation of the aligning portion (including R2, R4 and R6). In particular, the dictionary defines the word "hinder" as "1. To get in the way of: HAMPER. 2. To impeded or delay the progress of." See Webster's II New Riverside University Dictionary, at page 583. In contrast, Fig. 1 of Nahar et al. shows that the sheets (D) are aligned by the aligning portion (including R2, R4, and R6) in an area near (46), despite that fact that the pressure portion (F) is positioned next to the stack of sheets (D). As such, the position of the pressure portion (F) does not hinder the aligning operation of the aligning portion. Thus, Nahar et al. meets all of the limitations of claim 1 as now amended.

Regarding claim 2, Figs. 1 and 2 show that the aligning portion (including R2, R4 and R6) includes vibrating members (including R2, R4 and R6) for vibrating the bundle

sheets (D) by repeatedly lifting least two locations of a bottom portion of the bundle of sheets (bottom portion of sheets lifted by R2, R4 and R6). See also column 4, lines 1-7.

Regarding claim 6, the aligning portion (including R2, R4 and R6) is adapted to remain stationary in a position in which the aligning portion (including R2, R4 and R6) is retracted from the sheet supporting stand (20), or in a position in which a portion of the aligning portion (including R2, R4 and R6) projects from the sheet supporting stand (20), when the aligning portion (including R2, R4 and R6) does not align the bundle of sheets (D).

Regarding claim 12, Fig. 1 shows a separating portion (including 44 and 48) arranged to separate the sheets (D) one by one from the bundle of sheets (D) after aligning operation by the aligning portion (including R2, R4 and R6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3-5, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nahar et al. as applied to claim 1 above, and further in view of UK Patent Application No. GB2141408 (of record).

Regarding claim 3, Nahar et al discloses that the vibrating members (R2, R4 and R6) are rotary members to be rotated in a sheet feeding direction (up to down in Fig. 1), and a height of a portion of the rotary members (R2, R4 and R6) projecting from a

surface of a sheet supporting stand (20) is adapted to change in accordance with a rotational angle of the rotary member. See Fig. 4 and column 4, lines 1-7. However, it is unclear as to whether the vibrating members (R2, R4 and R6) are retracted to a position in which the portion does not project from the surface of the sheet supporting stand (20).

UK Patent Application No. GB2141408 discloses that it is well known to mount a vibrating member (7) such that when it rotates, a height of a portion thereof projecting from a surface of a sheet supporting stand (1) is adapted to change in accordance with a rotational angle of the vibrating member (7) and the vibrating member (7) is retracted to a position in which the portion of the vibrating member (7) does not project from the surface of the sheet supporting stand (1). More specifically, UK Patent Application No. GB2141408 discloses that such an arrangement is used to impart a jogging action on a document resting on the vibrating member (7). See, page 1, lines 80-90. It would have been obvious to one of ordinary skill in the art at the time of the invention, to arrange the vibrating members (R2, R4 and R6) of Nahar et al. such that when they rotate, the eccentric portion of each of the vibrating members (R2, R4 and R6) is retracted from a surface of the sheet support stand (20) of Nahar et al. during part of its rotation and the eccentric portion of each rotating member projects above the surface of the sheet supporting stand (20) during the remainder of its rotation, in order to effectively impart a jogging action to the sheets (D) resting on the Nahar et al. sheet support stand (20), as taught by UK Patent Application No. GB2141408.

Regarding claims 4 and 5, Fig. 4 of Nahar et al. shows that the rotary member (e.g., R2) has a shape that can be considered to be an eccentric cylindrical shape or a cam shape.

5. Claim 8, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Nahar et al. as applied to claim 1 above, and further in view of Hsiao et al.

Nahar et al. discloses a sheet feeding apparatus having a hitting portion (46) arranged to feed articles to a conveyer, but does not specifically disclose that the hitting portion (46) has a shutter that is retractable in a sheet feeding direction as claimed.

Hsiao et al. discloses that it is well known to use a shutter (15 or 31) on a feeding apparatus, in which the shutter (15 or 31) is retractable, and the shutter (15 or 31) is moved to a position in which the shutter (15 or 31) does not hinder movement of the article during the feeding operation (Fig. 2B) of a sheet feeding portion, while the shutter (15 or 31) is projected into an alignment position to hit against the article that is moved and block the movement of the article (Fig. 2A). In as much as applicants' shutter (4) moves in a sheet feeding direction, the shutter (15 or 31) of Hsiao et al. also moves in a sheet feeding direction. It would have been obvious to one of ordinary skill in the art at the time of the invention, to provide the hitting portion of Nahar et al. with a shutter in order to effectively control the timing of alignment and feeding of sheets in the Nahar et al. sheet feeding apparatus during the alignment operation, as taught by Hsiao et al.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nahar et al. as applied to claim 1 above, and further in view of Muenchinger et al.

Nahar et al. discloses a sheet feeding apparatus with a controlled motor (M2) that operates an aligning portion (including R2, R4 and R6), but it is unclear if the Nahar et al. motor control includes a setting portion.

Muenchinger et al. discloses a sheet feeding apparatus including an aligning portion (including 54 and 58), a sheet supporting stand (34, 36) and a motor (52) that is controlled such that the sheet feeding apparatus operates within a vibration frequency range (e.g., 1900-2800 rpm) and a vertical amplitude range (e.g., 0.5mm – 2.5mm) to vibrate sheets. See, e.g., Fig. 3 and column 2, line 57 to column 3, line 16. In other words, the Muenchinger et al. sheet feeding apparatus includes structure that controls the motor (52) to set the amplitude and frequency ranges, which can be considered to be a setting portion. It would have been obvious to one of ordinary skill in the art at the time of the invention, to include a setting portion on the Nahar et al. apparatus that controls the motor in order to set the frequency and amplitude ranges, as taught by Muenchinger et al.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nahar et al. as applied to claim 1 above, and further in view of Kosugi.

Nahar et al. discloses a sheet feeding apparatus with a sheet supporting stand (20) and a controlled motor (M2) that operates an aligning portion (including R2, R4 and R6), but it is unclear if any detecting portion and changing portion are used to operate the aligning portion (including R2, R4 and R6).

Kosugi discloses that it is well known to use a detecting portion (including sensors 15, 16 and 17) to detect an amount of bills (sheets) on a sheet support and a

changing portion (including controller 111) that changes at least the operating time of a motor. See, e.g., column 4, line 31 to column 6, line 34. It would have been obvious to one of ordinary skill in the art at the time of the invention, to include a detecting portion and a changing portion on the Nahar et al. sheet feeding apparatus to control at least the operating time of the motor, as taught by Kosugi. Controlling the operating time of the motor controls the aligning portion operating time.

Response to Arguments

8. Applicant's arguments filed in the Amendment dated February 9, 2005 have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicant states that "the present invention is characterized in its provision of a pressure portion which thrusts a bundle of sheets supported in an erect posture toward a sheet feeding portion to feed that bundle of sheets, and an aligning portion which moves the bundle of sheets to a hitting portion while vibrating the bundle of sheets upward and downward in at least two locations so as to align the bundle of the sheets. ***This is going on when the pressure portion is retracted*** to a position in which the pressure portion does not hinder an aligning operation of the aligning portion. As a result of this combination of features, it is possible to ***avoid a faulty alignment of sheet bundles*** that is ***caused by the force of***

the pressure portion that thrusts the bundle of sheets toward the sheet feeding portion." (emphasis added). However, the bolded portions above are not included in claim 1 as now amended. Rather, claim 1 recites "wherein said pressure portion is moved to a position in which said pressure portion does not hinder an aligning operation of said aligning portion during the aligning operation of said aligning portion". As mentioned above in the argument for claim 1, the dictionary defines the word "hinder" as "1. To get in the way of: HAMPER. 2. To impeded or delay the progress of." See Webster's II New Riverside University Dictionary, at page 583. In contrast, Fig. 1 of Nahar et al. shows that the sheets (D) are aligned by the aligning portion (including R2, R4, and R6) in an area near (46), despite that fact that the pressure portion (F) is positioned next to the stack of sheets (D). As such, the position of the pressure portion (F) does not hinder the aligning operation of the aligning portion (including R2, R4 and R6). Accordingly, Nahar et al. meets the limitations as now claimed.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is 703-305-0554. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on 703-306-4173. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DONALD R. WALSH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600